ABSTRACT OF THE DISCLOSURE

A transmission-speech extraction filter extracts speech to be transmitted from the output signal of a transmission-speech microphone by using the proximity effect. A background-sound extraction filter extracts background sound from the output signal of the transmission-speech microphone. A background sound level calculation section calculates the level of the extracted background sound in each frequency band, and sends the level to a loudness-compensation control section as a background-sound level. The loudness-compensation control section controls the amount of gain adjustment for a received-speech signal in each frequency band in a gain adjustment section according to the background-sound level and the received-speech level of a received-speech signal, calculated in a received-speech-level calculation section.